#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-021622 Address: 333 Burma Road **Date Inspected:** 18-Feb-2011

City: Oakland, CA 94607

**Project Name:** SAS Superstructure **OSM Arrival Time:** 700 **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Lv Li Qing No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

**Bridge No:** 34-0006 **Component:** OBG

#### **Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance(QA) Inspector Mr. Shrikant Utekar was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. The QA Inspector observed and/or found the following:

BAY # 14

This QA Inspector randomly observed the following work in progress.

#### **OBG 14EAST**

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066179 performing the Shielded Metal Arc Welding process on weld 137 located at PCMK SEG3019AB. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068097 performing the Shielded Metal Arc Welding process on weld 006 located at PCMK SEG3019Z. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

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This Quality Assurance (QA) Inspector observed ZPMC qualified welder 037132 performing the Shielded Metal Arc Welding process on weld 008 located at PCMK SEG3019Z. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2214-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066326 performing the Shielded Metal Arc Welding process on weld 040 located at PCMK SEG3019W. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-SMAW-3G (3F)-Fcm-Repair-1. Weld repair report identified as B-WR20244.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 067079 performing the Flux Cored Arc Welding process on weld 053 located at PCMK SEG3019J. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-345-FCAW-3G (3F)-ESAB-Repair. Weld repair report identified as B-WR20245.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 068917 performing the Shielded Metal Arc Welding process on weld 009 located at PCMK SEG3019X. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-P-2114-Tc-u4b-Fcm-1.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066733 performing the Flux Cored Arc Welding process on weld 208 located at PCMK SEG3019N. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This Quality Assurance (QA) Inspector observed ZPMC qualified welder 066763 performing the Flux Cored Arc Welding process on weld 220 located at PCMK SEG3019L. ZPMC QC Mr. Zhong Guo Hui was monitoring this welding operation. The welding variables recorded by QC appeared to comply with WPS-B-T-2233-ESAB.

This QA Inspector observed installation/erection of SP3121B and SP3122B was in progress in lift 14 east.

This QA Inspector observed ZPMC had performed Ultrasonic testing for the weld between vertical shear plates SA3358, SA3359, SA3361 and AP3031, weld number identified as SEG3019BB-025, 047, 091 respectively, this QA Inspector observed ZPMC has discovered 12 rejectable longitudinal linear indications in weld SEG3019BB-025, 7 rejectable longitudinal linear indications in the weld SEG3019BB-047 and 14 rejectable longitudinal linear indications in the weld SEG3019BB-091.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

# WELDING INSPECTION REPORT

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# **Summary of Conversations:**

No significant conversations were reported on this date.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, +(86) 1500 042 2372, who represents the Office of Structural Materials for your project.

Inspected By:	Utekar,Shrikant	Quality Assurance Inspector
Reviewed By:	Patterson,Rodney	QA Reviewer